Application No.: 09/632,809   Docket No.: 10991362-2 (1509-277)

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-21.   (canceled)

22.   **(currently amended)** A method of processing an original image that is either a color or gray scale image and that can be anyone of (a) a continuous tone image, (b) a multi-tone image or (c) a halftone image, the method comprising:

responding to brightness values of pixels of the original image to produce a horizontally and vertically warped line pattern including a series of warped lines representing warped brightness values of the pixels of the original image; [[,]] and

comparing the brightness values of pixels of the original image to the brightness values of spatially corresponding pixels of the horizontally and vertically warped line pattern to produce an engraving-style halftone image such that

(a)   pixels of the engraving-style halftone image that spatially correspond with pixels of the original image are black in response to the spatially corresponding pixels of the original image having a brightness value less than the brightness value of the spatially corresponding pixels of the horizontally and vertically warped line pattern; and

(b)   pixels of the engraving-style halftone image that spatially correspond with pixels of the original image are white in response to the spatially corresponding pixels of the original image having a brightness value greater than or equal to the brightness value of the spatially corresponding pixels of the horizontally and vertically warped line pattern;

wherein production of the horizontally and vertically warped line pattern includes:

(a)   obtaining brightness values of pixels along a series of lines extending in a first of the horizontal or vertical directions of the original image;

(b)   deriving a gray level distribution curve in response to the brightness values of the pixels along each of the lines; [[:]]

3

BEST AVAILABLE COPY

(c)   determining the spacing between adjacent halftone dots of each gray level distribution curve such that the areas of the gray level distribution curve between the adjacent dots are substantially the same, each line being formed by a search window including the pixels in the line and a predetermined number of pixels removed from the line in the second direction; and

(d)   for pixels on the line, summing the spacing of the halftone dots in the search window to obtain warping displacement values for pixels along the line so as to form a series of warped brightness pattern lines extending in the first direction.

23.   (previously presented) The method of claim 22, further including forming the horizontally and vertically warped line pattern by interpolating in the second direction between the brightness values of the series of warped brightness pattern lines.

24-27. (canceled)

28.   (currently amended) A computer readable medium ~~or computer storage device~~ storing a program <u>which, when executed, causes</u> ~~for causing~~ a computer ~~arrangement~~ to perform the steps of claim 22.

29.   (canceled)

30.   (currently amended) A system for processing an original image that is either a color or gray scale image and that can be anyone of (a) a continuous tone image, (b) a multi-tone image or (c) a halftone image, said system comprising<u>:</u> ~~a processor programmed to~~

<u>means for responding</u> ~~respond~~ to brightness values of pixels of the original image <u>and for producing</u> ~~to produce~~ a horizontally and vertically warped line pattern including a series of warped lines representing warped brightness values of the pixels of the original image<u>;</u> [[,]] and

<u>means for comparing</u> ~~compare~~ the brightness values of pixels of the original image to the brightness values of spatially corresponding pixels of the horizontally and vertically warped line pattern to produce an engraving-style halftone image such that

4

Application No.: 09/632,809   Docket No.: 10991362-2 (1509-277)

(a)   pixels of the engraving-style halftone image that spatially correspond with pixels of the original image are black in response to the spatially corresponding pixels of the original image having a brightness value less than the brightness value of the spatially corresponding pixels of the horizontally and vertically warped line pattern; and

(b)   pixels of the engraving-style halftone image that spatially correspond with pixels of the original image are white in response to the spatially corresponding pixels of the original image having a brightness value greater than or equal to the brightness value of the spatially corresponding pixels of the horizontally and vertically warped line pattern;

wherein said means for producing ~~production of~~ the horizontally and vertically warped line pattern includes:

(a)   means for obtaining brightness values of pixels along a series of lines extending in a first of the horizontal or vertical directions of the original image;

(b)   means for deriving a gray level distribution curve in response to the brightness values of the pixels along each of the lines; [[:]]

(c)   means for determining the spacing between adjacent halftone dots of each gray level distribution curve such that the areas of the gray level distribution curve between the adjacent dots are substantially the same, each line being formed by a search window including the pixels in the line and a predetermined number of pixels removed from the line in the second direction; and

(d)   means for summing, for pixels on the line, ~~summing~~ the spacing of the halftone dots in the search window to obtain warping displacement values for pixels along the line so as to form a series of warped brightness pattern lines extending in the first direction.

31.   **(currently amended)** The system of claim 30, wherein said means for producing ~~the processor is further programmed to form~~ the horizontally and vertically warped line pattern further comprises means for [[by]] interpolating in the second direction between the brightness values of the series of warped brightness pattern lines.

5